

1 6. The method of claim 1, wherein importing the environment information
2 comprises importing the environment information of a target database system having
3 plural access modules that manage concurrent access of plural portions of data stored in
4 the target database system.

1 7. The method of claim 6, wherein importing the environment information further
2 comprises importing information pertaining to a configuration of the target database
3 system.

1 8. The method of claim 6, wherein importing the environment information further
2 comprises importing cost-related information of the target database system.

1 9. The method of claim 7, wherein importing the cost-related information comprises
2 importing information comprising at least some of the following: number of nodes in the
3 target database system, number of CPUs per node, number of access modules per node,
4 an amount of memory allocated per access module, disk access speed, and network
5 access speed.

1 10. The method of claim 1, further comprising emulating an environment of the target
2 database system using the random sample statistics, wherein performing the query plan
3 analysis comprises performing the query plan analysis in the emulated environment.

1 11. The method of claim 10, wherein emulating the environment comprises emulating
2 the environment at one of plural emulation levels, the plural emulation levels comprising
3 a system level and a user session level.

1 12. The method of claim 10, further comprising generating a full set of statistics from
2 the random sample statistics.

1 13. The method of claim 12, further comprising invoking an optimizer to use the full
2 set of statistics to perform the query plan analysis.

1 14. The method of claim 1, further comprising using an SQL DIAGNOSTIC
2 statement to identify random sample statistics to capture.

1 15. The method of claim 14, further comprising using another SQL DIAGNOSTIC
2 statement to set random sample statistics in the storage location.

1 16. A test system comprising:
2 an interface to receive environment information associated with a target database
3 system, the environment information comprising at least one of the following: sample
4 statistics collected from a segment of the target database system, and cost-related
5 information pertaining to a configuration of the target database system;
6 a storage system to store the environment information; and
7 an optimizer adapted to determine a query plan in response to a given query in an
8 environment based on the environment information.

1 17. The database system of claim 16, wherein the target database system comprises
2 plural access modules to manage respective portions of data stored in the target database
3 system, and wherein the sample statistics comprise sample statistics collected from less
4 than all the access modules in the target database system.

1 18. The test system of claim 17, wherein the sample statistics comprise sample
2 statistics collected from randomly selected one or more of the access modules.

1 19. The test system of claim 17, wherein the sample statistics comprise at least some
2 of the following information: database name, base table name, number of rows in the
3 base table, number of indexes for the base table, minimum row length in the base table,
4 maximum row length in the base table, secondary index name, number of rows in a
5 secondary index table, and average row size of the secondary index table.

